AMENDMENTS TO THE CLAIMS:

Without prejudice, this listing of the claims replaces all prior versions and listings of the claims in the present application:

LISTING OF CLAIMS:

1. (Currently Amended) A process for generating at least one descriptive collision signal describing motor vehicle collisions, comprising the steps of:

deriving a core signal by low-pass filtering a collision signal actually measured;

splitting the core signal into a plurality of chronologically sequential signal segments;

transforming ~~simulating~~ each of the signal segments into simulated signal segments using a respective transmission function having an input;

combining the transmission functions to form an overall transmission function; and

forming the at least one descriptive collision signal by varying at least one parameter of the overall transmission function.

2. (Original) The process according to claim 1, wherein the core signal is split into individual pulses.

3. (Original) The process according to claim 2, further comprising the step of determining the signal segments by comparing the individual pulses with a model pulse, and accepting one of the individual pulses as an individual signal segment when the individual pulse is within preset limits relative to the model pulse, the model pulse being a gaussian pulse, the gaussian pulse being variable through a plurality of parameters.

4. (Original) The process according to claim 1, wherein the signal segments are simulated using the transmission function in a complex z plane in the following manner:

$$He(z) = \frac{b0 = blz^{-1} + b2z^{-2}}{1 + alz^{-1} + a2z^{-2} + a3z^{-3}}$$

wherein b0, b1, b2, a1, a2, and a3 are coefficients identified for the signal segments.

5. (Original) The process according to claim 1, wherein the overall transmission function is determined in the following manner:

$$Hs(z) = \sum_{i=1}^{s} \sum_{j=0}^{m} \sum_{k=0}^{n} \frac{bjiz^{-1}}{akiz^{-k}} z^{-li}$$

wherein i is a running index for the signal segments, with s being a number of signal segments;

j is a running index for a numerator coefficient b, with m being an order of the numerator coefficient;

k is a running index for a denominator coefficient a, with n being an order of the denominator coefficient; and

l is a vector denoting boundaries of the signal segments.

6. (Original) The process according to claim 5, wherein at least one complex pole in the overall transmission function is varied to form the at least one descriptive collision signal.